CALIFORNIA HIGH-SPEED RAIL AUTHORITY

ARRA Track 2 Proposals

September 23, 2009

Board Presentation

Federal High-Speed Rail Funding

- Legislative foundation:
  - 2008 Passenger Rail Investment and Improvement Act (PRIIA)
  - 2009 American Recovery and Reinvestment Act (ARRA)
  - 2009 High-Speed Intercity Passenger Rail (HSIPR) Act
    - Track 1 ARRA Rail Projects
    - Track 2 Service Development Program (ARRA)
    - Track 3 Service Planning Activities (FY08/09 Appropriations)
    - Track 4 FY09 Appropriations Projects
- Funding: $8 Billion in ARRA funding; additional appropriations for HST proposed the FY10 Budget

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

ARRA Track 2 Timeline

- Pre-application and comment: July 10, 2009
- Application: October 2, 2009
- FRA Decisions on Awards to be Made: ~3-4 months
- FRA Obligation/Letter of Intent: NLT Sept. 30, 2011
- Corridor Program environmental clearance (ROD/NOD): NLT Sept. 30 2011
- Begin construction: NLT Sept. 30, 2012
- Project Completion: NLT Sept. 30, 2017

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

CHSRA Program Proposals

- Seven CAHSRA Program proposals are being developed for Track 2 funding:

Preliminary Engineering (PE)/Environmental Review

- Three Corridor Programs covering all nine sections of the California statewide HST system and the Altamont Corridor

Four Design/Build Corridor Programs:

- San Francisco – San Jose
- Merced – Fresno
- Fresno – Bakersfield
- Los Angeles – Anaheim

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

PE/Environmental Corridor Programs

1. *Phase 1 HSR PE – NEPA/CEQA* Corridor Programs:*
   - San Francisco to San Jose
   - San Jose to Merced
   - Merced to Fresno
   - Fresno to Bakersfield
   - Bakersfield to Palmdale
   - Palmdale to LA
   - LA to Anaheim

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** Environmental review in accordance with National Environmental Policy Act / California Environmental Quality Act*

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

PE/Environmental Corridor Programs (continued)

2. *Phase 2 HSR NEPA/CEQA Corridor Programs:*
   - Merced to Sacramento
   - LA to San Diego

3. *Altamont Corridor Rail NEPA/CEQA Corridor Program*

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

PE/Environmental Applications

- Requesting $276.5 million for PE and Project-Level EIS/EIRs. Total cost: $553 million with dollar-for dollar state and local match
- Plan to obtain an approved Notice of Determination (NOD) and Record of Decision (ROD) for each of the nine HST sections plus the Altamont Corridor Rail Project
- Working with the FRA to facilitate a draft Rule of Particular Applicability and associated waivers by next summer to enable construction bid documents to appropriately reflect FRA requirements to operate trains at 220 mph

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

SF-San Jose D/B Corridor Program

Proposal

Includes all MTC Phase 1 HSR scope except some Transbay Transit Center Costs

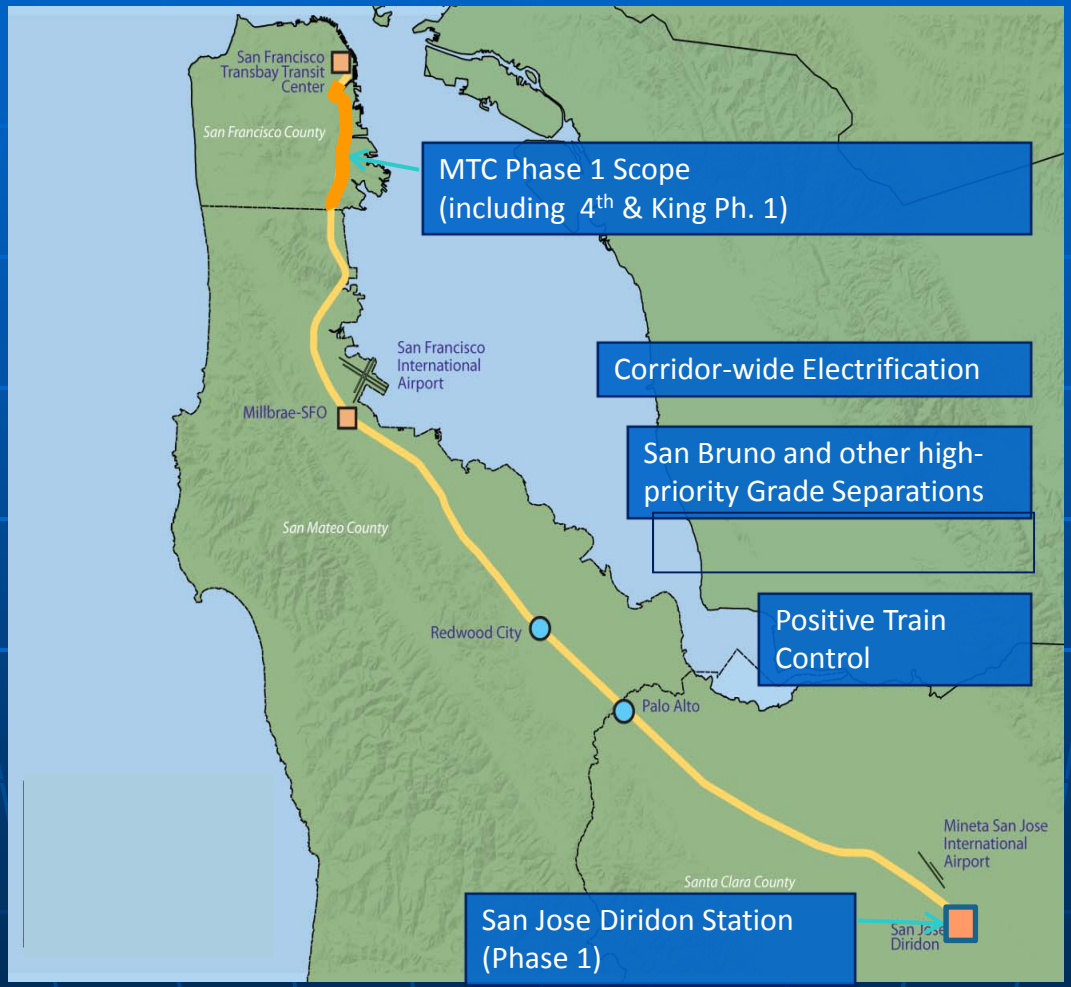
Proposal includes:

- Electrification
- Positive Train Control
- San Bruno and other high-priority grade-separations
- San Jose-Diridon Station (Phase 1) and 4th and King Station (Phase 1)

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

San Francisco-San Jose Corridor Map

Showing Major Elements proposed to be funded by Track 2 Grant



CALIFORNIA HIGH-SPEED RAIL AUTHORITY

SF-San Jose D/B Corridor Program

Route Description

- Route will be co-located with Caltrain's Peninsula Commuter Rail Corridor between San Francisco and San Jose

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

SF-San Jose D/B Corridor Program

Estimated Cost Summary

- Total Capital Cost: $2,560 million (in YOE$)
- State & Local Share: $1,280 million
- Federal Share: $1,280 million

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

SF-San Jose D/B Corridor Program

Estimated Cost Breakdown	*YOE$ in Millions*
Transbay Terminal Platform Extensions	$205
4th and King (Phase I)	$100
San Bruno Grade Separations	$300
High-Priority Grade Separations	$689
Corridor Electrification	$885
Positive Train Control	$231
Diridon Station Phase I	$150
Total Cost	$2,560

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

SF-San Jose D/B Corridor Program

Independent Utility

HSR infrastructure would be used by Caltrain in the interim (or longer-term until Statewide Phase 1 HST system is completed) using higher-speed, lighter-weight trains

Environmental Review

- FRA Record of Decision (ROD) is scheduled to be issued by September 2011 ARRA mandate

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Merced-Fresno D/B Corridor Program

Proposal

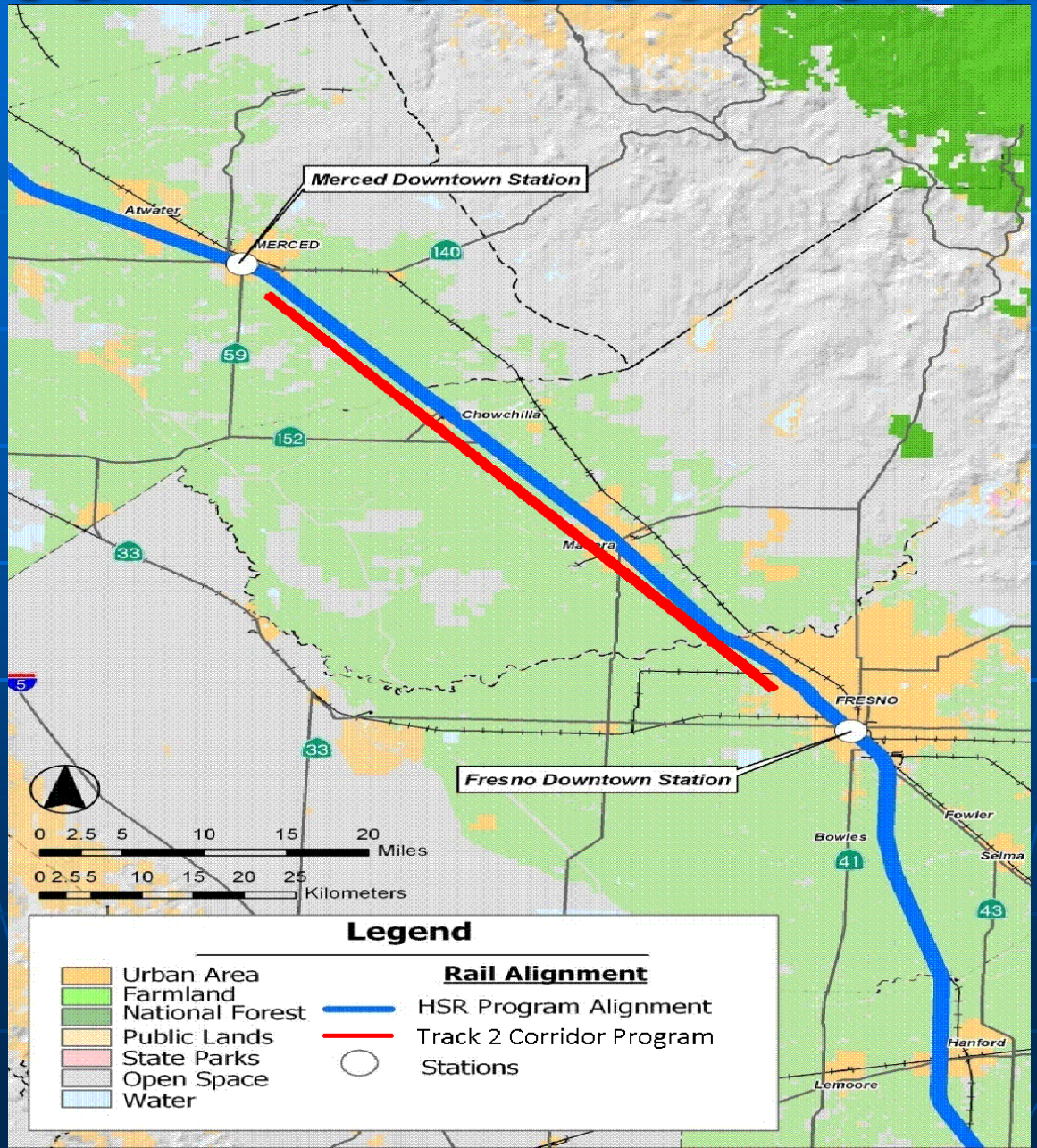
Construct HSR infrastructure including track but not electrification and other HSR "systems" for 220 mph operation in the 50-mile section between Merced and Fresno

Proposal Assumptions:

- HSR tracks would parallel the Union Pacific Railroad (UPRR) route and State Route (SR) 99
- Includes 100-ft wide ROW acquisition adjacent to UPRR, grade separations, SR99 interchange modifications, utility relocation, environmental mitigation, earthwork, guideway structures, track

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

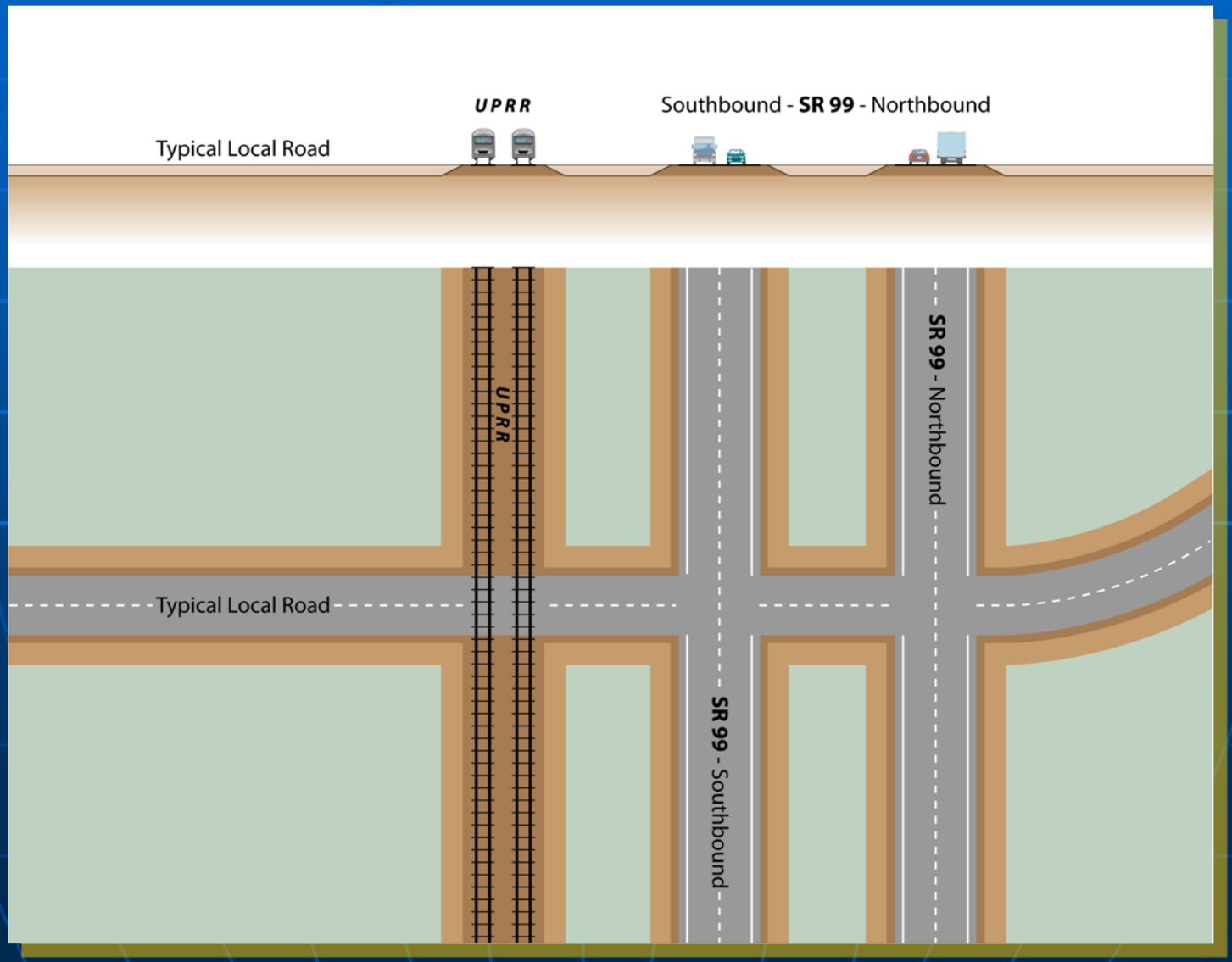
Merced – Fresno Section Map



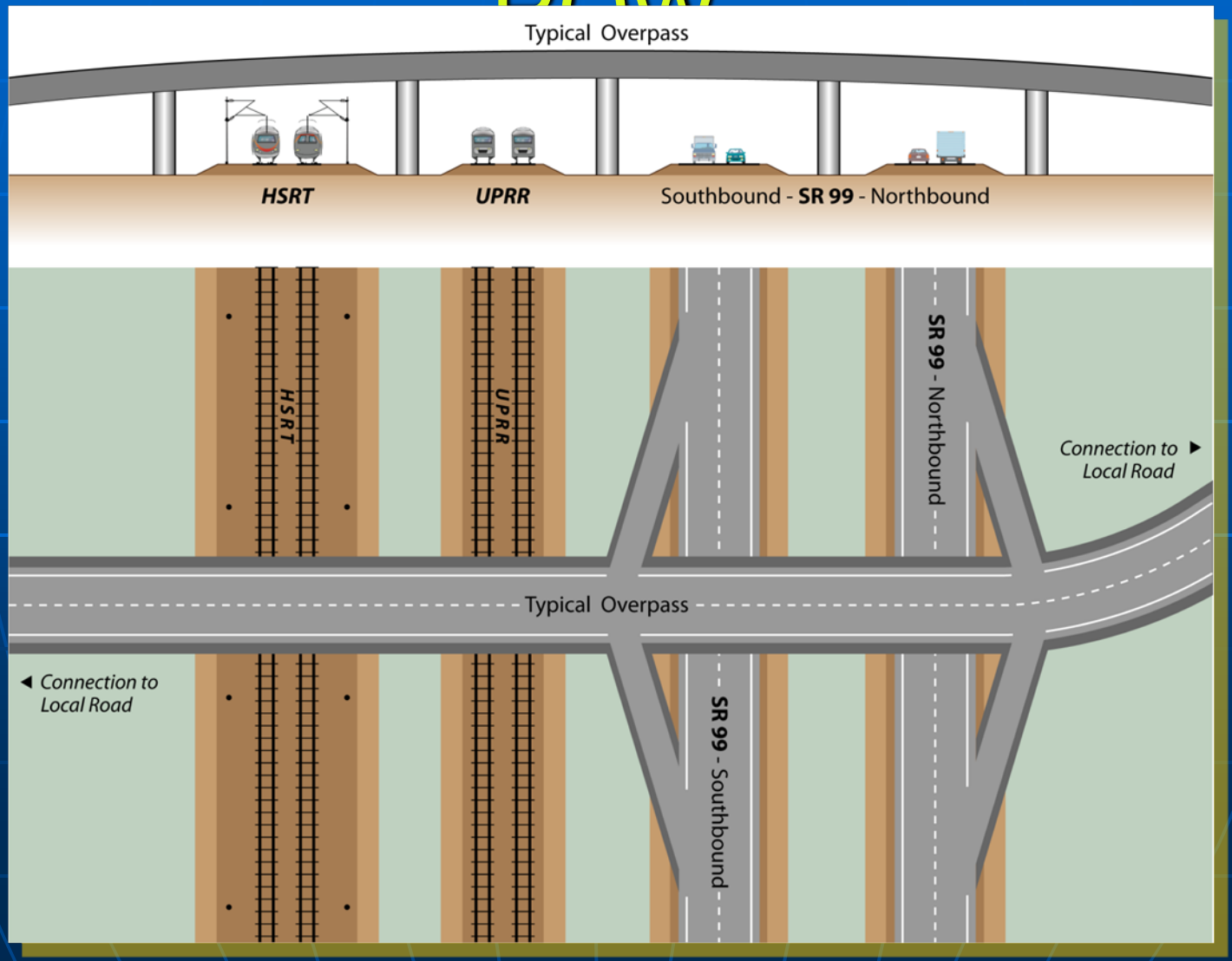
Typical Existing Conditions Crossing SR99 and UPRR

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Typical Existing Conditions Crossing SR99 and UPRR



Proposed Improved Options Crossing Over SR99 and UPRR ROW



Merced-Fresno D/B Corridor Program

Estimated Cost Summary

- Total Capital Cost: $932 Million (YOE$)
- State & Local Share: $466 million
- Federal Share: $466 million

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Merced-Fresno D/B Corridor Program

Estimated Cost Breakdown	*YOE $ in Millions*
Track and Structures	$603
ROW and Sitework	$208
Professional Services	$88
Unallocated Contingency	$33
Total Cost	$932

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Merced-Fresno D/B Corridor Program

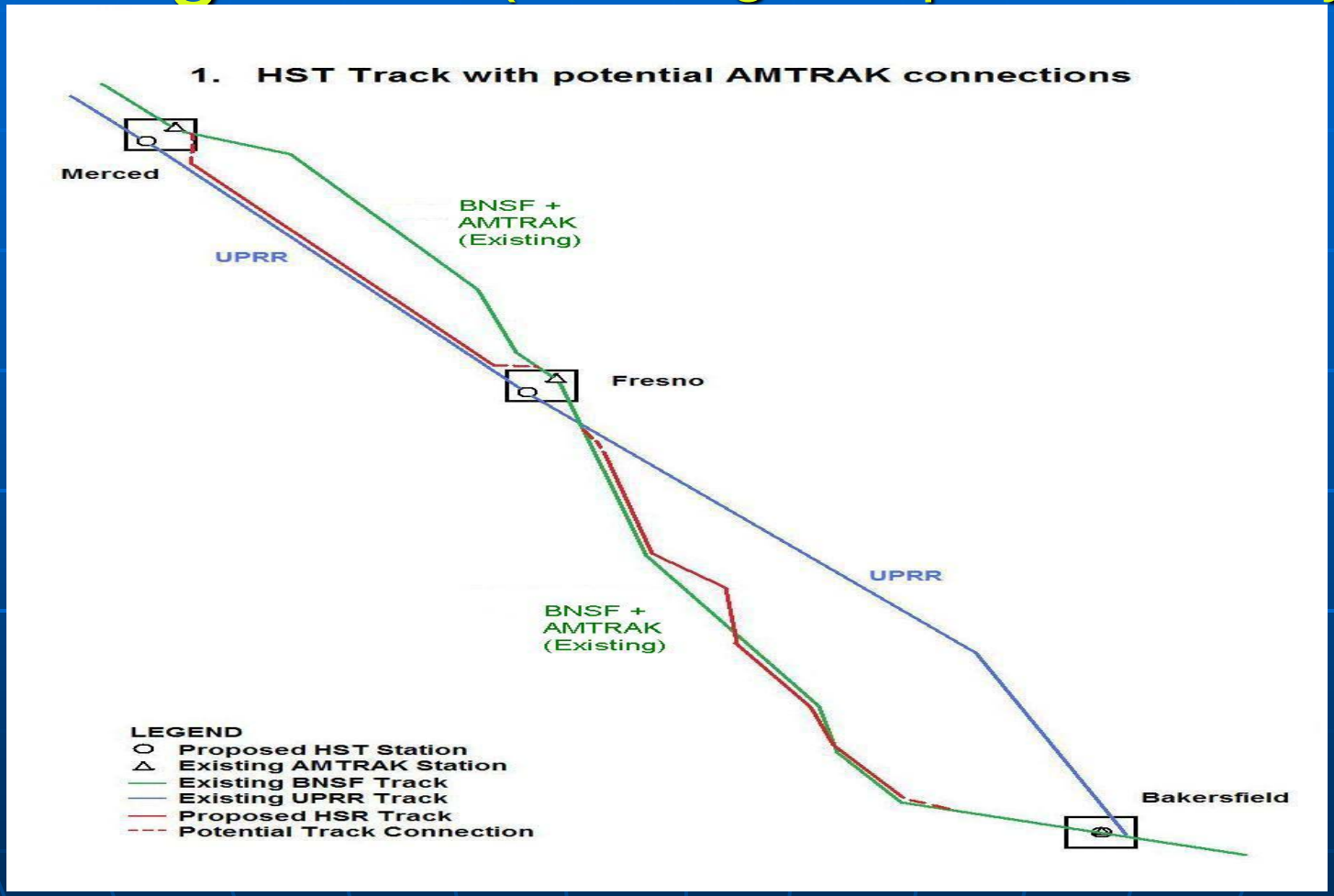
Independent Utility

- Independent utility is provided by constructing approximately 50 miles of new high-speed double-track railroad between Merced and Fresno allowing connection into conventional rail passenger services at each end
- Undertaking the highway modifications and grade separations of the UPRR early in the CHST Project would provide immediate safety and traffic-flow benefits

Complimentary to Caltrans' "SR 99 Corridor Program" under the Highway Safety, Traffic Reduction, Air Quality and Port Security Bond Act of 2006

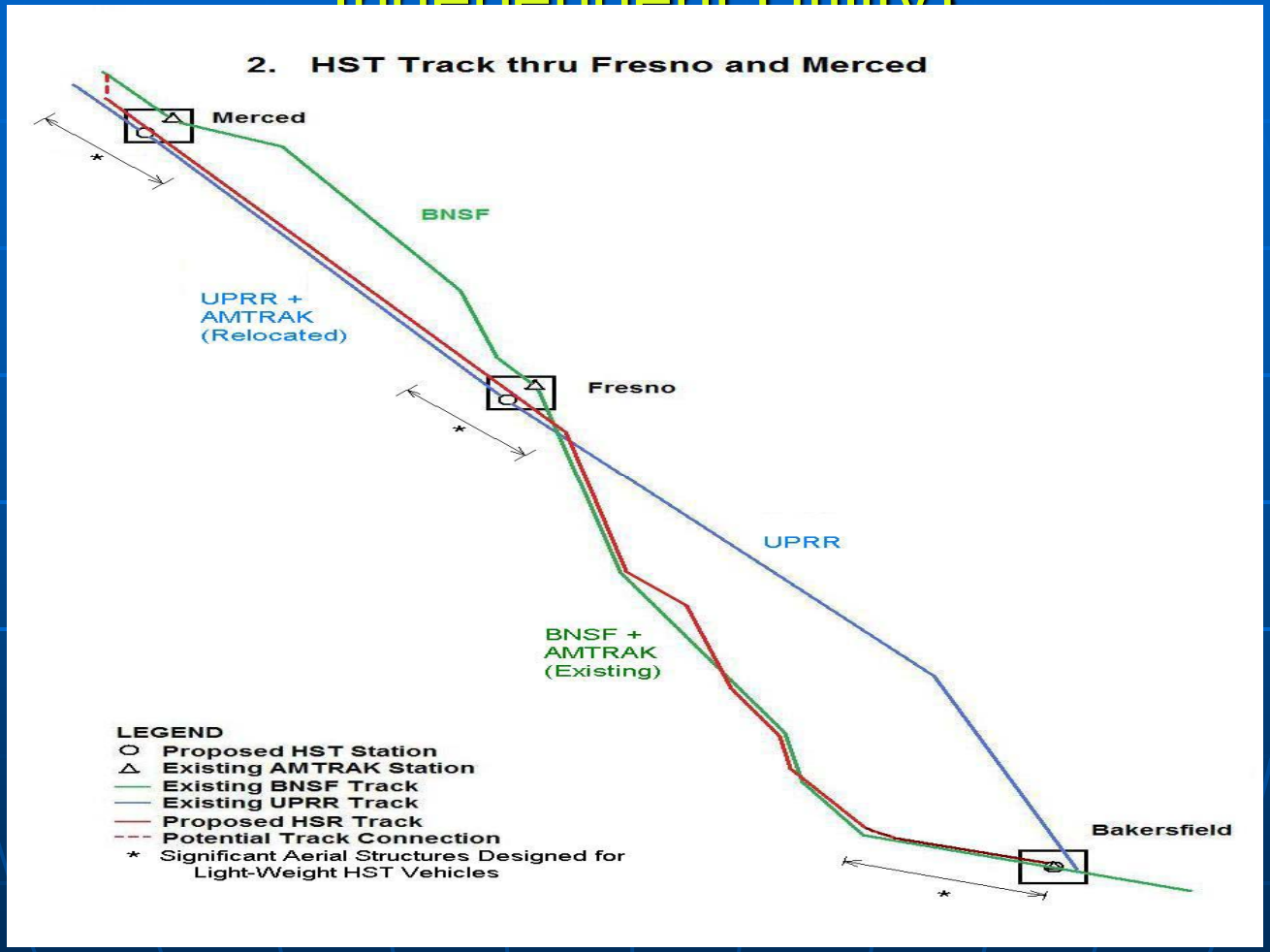
CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Central Valley D/B Corridor Programs (showing Independent Utility)



CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Central Valley Downtown-Downtown through-routes (No Independent Utility)



CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Merced-Fresno D/B Corridor Program

Environmental Review

- Authority is expediting environmental review (NOD/ROD) of this segment to Sept 2011
- Splitting NOI / NOP from Fresno-Bakersfield section will simplify the environmental review process

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Fresno-Bakersfield D/B Corridor Program

Proposal

Construct HSR infrastructure including track but not the electrification and other HSR “systems” for up to 220-mph operation

Proposal includes:

- Relocation of BNSF track w/in their existing ROW to make room for new HSR tracks to run generally adjacent to the freight tracks
- Right-of-way acquisition (100’ width outside BNSF ROW), grade-separations, utility relocation, environmental mitigation, earthwork, guideway structures, and track

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

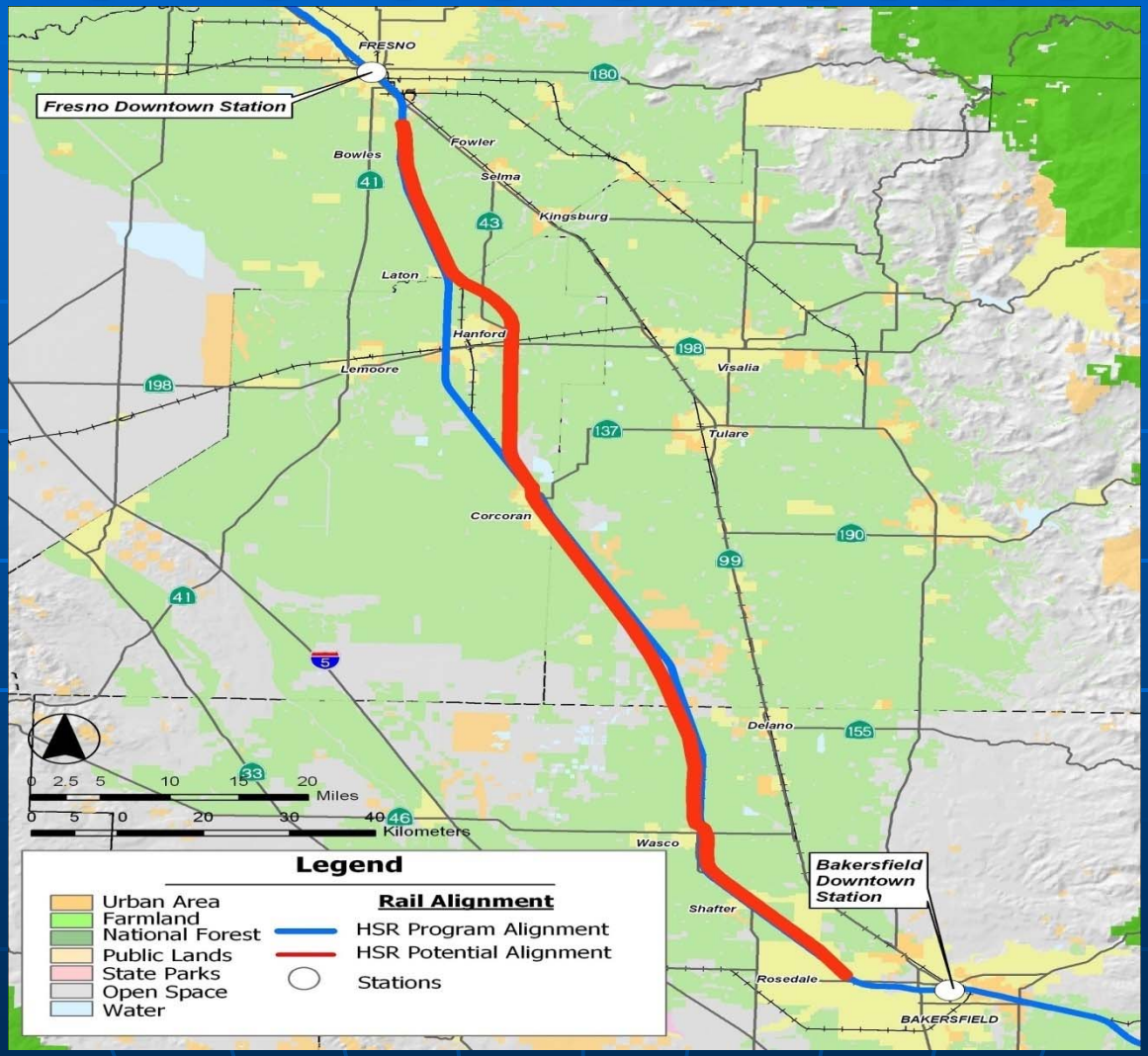
Fresno-Bakersfield D/B Corridor Program

Proposed Route

- Approximately 98-miles long, from just south of the Fresno metropolitan area to an area just north of the Bakersfield metropolitan area.
- The alignment is assumed to pass east of the City of Hanford to accommodate a possible future Visalia/Tulare/Hanford station.

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Fresno-Bakersfield Section Map



CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Fresno-Bakersfield D/B Corridor Program

Proposal Assumptions

- Route geometry designed to 250 mph HST standards
- Aerial structures and bridges designed for conventional passenger rail traffic
- New track could be connected to BNSF track via switching at the north and south ends

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Fresno-Bakersfield D/B Corridor Program

Estimated Cost Summary

- Total Capital Cost: $1,639 million (YOE$)
- State & Local Share: $819.5 million
- Federal Share: $819.5 million

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Fresno-Bakersfield D/B Corridor Program

Estimated Cost Breakdown	*YOE $ in Millions*
Track and Structures	$749
ROW and Sitework	$690
Professional Services	$142
Unallocated Contingency	$58
Total Cost	$1,639

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Fresno-Bakersfield Section

Independent Utility

Independent utility is provided by constructing approx. 98 miles of new high-speed double track between Fresno and Bakersfield, connecting to BNSF tracks at the north and south ends, providing a grade-separated, dedicated route for use by Amtrak if HSR-system implementation is delayed. Will greatly improve safety and trip time.

Environmental Review

- Authority is expediting environmental review (NOD/ROD) of this section to Sept 2011
- Splitting NOI / NOP from Merced-Fresno segment will simplify the environmental review process

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

LA-Anaheim D/B Corridor Program

Proposal

Construct the HSR infrastructure including track (but not electrification and other HSR "systems") in this 30.1-mile segment that parallels the existing freight and passenger LOSSAN corridor

Proposal includes:

- Right-of-way acquisition, grade-separations, utility relocation, environmental mitigation, earthwork, guideway structures, tunneling, and trackwork.
- HSR facilities at Los Angeles Union Station (LAUS), Norwalk Station, and Anaheim Regional Transportation Intermodal Center (ARTIC)

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

LA- Anaheim Section Map

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

LA-Anaheim D/B Corridor Program

Estimated Cost Summary

- Total Capital Cost: $4,005 million (YOE$)
- State & Local Share: $2002.5 million
- Federal Share: $2002.5 million

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

LA-Anaheim D/B Corridor Program

Estimated Cost Breakdown	*YOE $ in Millions*
Track and Structures	$1,126
Stations	$556
ROW and Sitework	$1,770
Professional Services	$404
Unallocated Contingency	$149
Total Cost	$4,005

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Los Angeles – Anaheim Section

Independent Utility

- HSR infrastructure would be used by Metrolink in the interim (or longer-term until Phase 1 HST system is completed) using higher-speed, lighter-weight trains

Environmental Review

- FRA Record of Decision (ROD) is scheduled to be issued in April 2011 in advance of the September 2011 ARRA mandate

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Escalation and Calculation of YOE $

- Forecast Cost Escalation Rates
  - 2008-2009: 2.4%*
  - 2009-2010: 3.0%
  - 2010 and beyond: 3.5%**
- Year-of-Expenditure Calculation
  - In accordance with FRA guidance, estimated Base Year 2010 Costs were distributed across implementation years while escalating each allocation

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* Based on *Engineering News Record* published Construction Cost Index (CCI) for 2008-2009

** Long-term rate recommended by the IMG Team

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Summary of Cost Proposals

	Total Cost (YOE $ in Millions)	Federal Share (YOE$ in Millions)
PE/Environmental Corridor Programs	$553	$276.5
Design/Build Corridor Programs		
San Francisco – San Jose	$2,560	$1,280
Merced - Fresno	$932	$466
Fresno - Bakersfield	$1,639	$819.5
Los Angeles - Anaheim	$4,005	$2,002.5
Total Design/Build Proposals	$9,136	$4,568

CALIFORNIA HIGH-SPEED RAIL AUTHORITY